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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,360	06/15/2000	George L. Bees	FOM-119.01	9301

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EXAMINER

NGUYEN, TUAN M

ART UNIT PAPER NUMBER

2828

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,360

Applicant(s)

BEES, GEORGE L.

Examiner

Tuan M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul IP

PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: in the specification applicant state that the illustrated control module (34) is NOT microprocessors based, however those skilled in the will recognize that the control processor may be a microprocessor based device, including for example, a personal computer (PC), SUN workstation, laptop or handled computer including personal digital assistant (PDA), connected through a network or in a stand-alone capacity, and functioning as described herein, without departing from the scope if the invention (page 03) which render the specification confusing.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al (6,442,181) in view of Richardson (4,803,378).

With respect to claims 1 and 9, Oliver et al disclose the gas discharge laser comprising Power supply (200), the switches (Q1, Q2, Q3) the input connection to power supply and the output connection to a capacitor (42) for storing energy to be delivered to pulse discharge system, the control board (204) is acting as a sensor for monitoring the voltage cross the capacitor, the digital voltage command (210) is acting as a controller to responsive to the voltage across the capacitor, note col. 8 line 25 to col. 10 line 25, see figs 7a-7b. However Oliver does not discloses a keep up supply responsive to the voltage cross the capacitor and delivering energy to the capacitor to maintain the voltage at a predetermined level. Whereas Richardson discloses a means is included for sensing a residual reverse polarity charge on the capacitor after generation of a pulse and for using the energy stored in it to assist in recharging the capacitor for the next pulse, note col. 1 line 35 to col. 4 line 54, see fig. 1. For the advantageous of a gas discharge laser, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Oliver with the sensing a residual reverse polarity charge on the capacitor as taught or suggested by Richardson.

With respect to claims 2-3, Oliver et al disclose the switching mechanism includes an inductor arranged for storing energy and time constant that less than a pulse rate associated with the pulse discharge system, note cols. 8-9, see figs. 7a-7b.

With respect to claim 4, Oliver et al disclose the board control (204) and the digital voltage command (210), see figs. 7a-b.

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With respect to claim 5, Oliver et al disclose the voltage divider (R1, R2) connected in parallel to the capacitor (42), see figs. 7a-b.

With respect to claim 6, Oliver et al disclose the pulse discharge driven system includes a laser (10), see fig. 1.

With respect to claim 7, Richardson disclose the invention is particularly developed for use in supplying pulse to a microwave tube such as a magnetron in a radar transmitter, note col. 1.

With respect to claims 10-11, Oliver et al disclose the circuit includes inductor (L1) , capacitor (42) and switching mechanism (Q1, Q2, Q3) and power supply (200), see figs. 7a-b.

With respect to claims 12-16, Oliver et al disclose a gas discharge laser includes main power supply (200), capacitor (42), inductor (L1), switches (Q1, Q2, Q3), voltage divider (R1, R2) is parallel with capacitor and measuring a voltage at a point along the voltage divider, note col. 8 line 25 to col. 10 line 25, see figs 7a-7b.

Allowable Subject Matter

4. Claim 8 is objected to as being dependent upon to rejected base claim, but would be allowable if rewritten in independent from including all of the limitations of the base claim and any intervening claim.

Response to Arguments

5. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

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Citation Of The Pertinent References

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Oliver et al (US patent 6,477,193) discloses extreme repetition rate gas discharge laser with improved blower motor.

Communication Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247. The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-5511 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Paul Ip
SPE
Art unit 2828

TMN
December 7, 2002